Guidelines: Addressing Required Points 3, 4, and 5 of the Vertebrate Animal Section (VAS) for NIH Applications and Proposals

Members of NIH scientific review groups are instructed to evaluate the 5 point VAS to determine if it is complete and if plans for the use of vertebrate animals are appropriate relative to the scientific work proposed. Points 1 and 2 are relatively straightforward and the detail expected has not changed significantly (describe the animals and their proposed use; provide justifications for the use of animals, choice of species, and number of animals to be used).

However, more detail may now be requested for Points 3, 4, and 5. A detailed worksheet on the VAS has been developed by the NIH Office of Laboratory Animal Welfare and is available at http://grants.nih.gov/grants/olaw/VAChecklist.pdf .

To aid USA investigators who house animals in the Department of Comparative Medicine with writing of those sections, the following guidance and verbiage (in *italics*) is offered:

POINT 3 - Provide a general description of veterinary care, including veterinary support that is specifically relevant to the proposed procedures.

The University of South Alabama (USA) has an approved Animal Welfare Assurance, #A3288-01, on file with the NIH Office of Laboratory Animal Welfare. The College of Medicine was initially granted Full Accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC International) on March 2, 1999. Full Accreditation has been maintained to the present date.

USA has established and maintains its program and activities involving animals in accordance with the Animal Welfare Act and the Guide for the Care and Use of Laboratory Animals (ILAR, 1996).

Indicate the following:

- A brief account of veterinary staff and their availability -

Animal research facilities are staffed 365 days per year. Weekend and holiday animal husbandry coverage is provided by full-time laboratory animal technicians. USA employs one full-time and one part-time veterinarian with experience and training in laboratory animal medicine. These veterinarians are supported by a vivarium manager, two laboratory animal supervisors, and five laboratory animal technicians (care staff).

All animals are observed for signs of illness and/or injury, and are fed and watered daily. Routine animal husbandry tasks and research procedures are performed which include scheduled cage/pen changing and sanitation and research manipulations/treatments (such as post-operative care and weaning animal litters) as required by the experimental protocol. Clinical treatments are performed by Department of Comparative Medicine (DCM) personnel.

Weekend and holiday supervision and on-call veterinary coverage are provided by the facility supervisors and veterinary personnel on a rotational basis. A veterinarian and a supervisor are on-call at all times. Home telephone numbers and cellular telephone numbers for facility

supervisors, manager and veterinarians are posted on the main entry doors and adjacent to facility telephones in the Biologic Research Laboratory (BRL).

- The regular schedule of monitoring of animals by veterinary staff -

Veterinary care for the animals housed at the university is provided daily by veterinary staff. Although both prophylactic and therapeutic treatments are conducted, preventative medicine programs that include health surveillance (for rodents- through sentinel testing and annual monitoring), quarantine procedures, and environmental monitoring are emphasized to prevent the introduction of infectious diseases and other health problems. Every animal is checked at least twice daily. Any therapeutic or prophylactic procedures ordered by the veterinarian are carried out by the facility supervisor or laboratory animal technicians.

- Any additional monitoring and veterinary support that may be required to ensure humane care, if relevant to the procedures proposed (e.g., post-surgical) -

[Insert specific animal health monitoring and veterinary care needs for your project.]

Post-surgical monitoring-

The principal investigator (PI) for each protocol is primarily responsible for post-procedural care for that protocol. DCM technicians, supervisors, and veterinarians may also provide post-procedure care, if needed. Animals must be housed in the BRL following procedures and post-surgical care is monitored by DCM technicians (specifically the laboratory animal technicians assigned health duties), supervisors and the veterinarian. Records of care are kept on a Post-Procedural Care Record that is maintained in the room where the animal is housed. This record contains information regarding the health status of the animal, any pain/distress observed, and details of the administration of analgesics.

Health monitoring for rodent colonies-

Sentinel animals are placed into each mouse and rat room. Soiled bedding from cages on the same rack as the sentinels is placed into the sentinel animal cages at each cage change. Quarterly, sentinel animals are euthanized and necropsies performed. Pelt and cecal exams are performed to identify parasites. Serology is performed for selected rodent pathogens. Semi-annually, perianal tape tests and fecal examinations are also performed on colony animals.

- Indicators for veterinary intervention to alleviate discomfort, distress or pain, if relevant -

[Pain/distress concerns are specific for individual projects. Please consult DCM veterinary staff guidance on your project.]

If animals exhibit any indication of infection or distress, the veterinary staff confers with laboratory personnel to recommend appropriate antibiotics, analgesics, or other pharmaceuticals.

POINT 4 - Describe procedures to minimize discomfort, distress, pain and injury.

Indicate the following:

- Circumstances relevant to the proposed work, when animals may experience discomfort, distress, pain or injury -

[Assessment of pain/distress is species- specific. End-points are specific for individual projects. Please consult DCM veterinary staff guidance on your project.]

- Procedures to alleviate discomfort, distress, pain or injury -

[Many anesthetics, analgesics, sedatives, NSAIDs and other pharmacological means to alleviate pain and discomfort on research animals are available upon consultation with the DCM veterinary staff. Non-pharmacologic means may include animal acclimation handling, comfort items (bedding, padding, thermal pads), social/group housing, and positive reinforcement. Please consult DCM veterinary staff and the *AVMA Policy on Pain in Animals* for guidance on your project.]

http://www.avma.org/issues/policy/animal_welfare/pain.asp

- Identify (by name or class) any tranquilizers, analgesics, anesthetics and other treatments (e.g., antibiotics) and describe their use -

[Investigators are encouraged to consult with the DCM clinical veterinarian during preparation of experimental protocols for advice regarding the most suitable anesthetic and analgesic protocols.]

- Provisions for special care or housing that may be necessary after experimental procedures –

[This answer is specific to your grant proposal. Examples of special housing include: experimental diets, autoclaved food/bedding, biohazardous disposal of soiled bedding, etc.]

- Plans for post-surgical care, if survival surgeries are proposed -

[If applicable, post-operative analgesics can be pre-emptively administered by the investigator or by DCM personnel. Please consult the veterinarian for recommended doses/schedules for post-operative analgesia. If applicable, include in this section any wound care or special housing required for post-procedure animals specific to your project.]

- Indicators for humane experimental endpoints, if relevant -

[End-points are protocol-specific. Please consult the veterinarian and the *Institutional Animal Care and Use Committee Guidebook* (chapter C, section 2c., *Humane Endpoints*, for guidance on selecting appropriate endpoints for your project.]

http://www.southalabama.edu/researchcompliance/pdf/IACUCguide.pdf

- Describe the use of restraint devices, if relevant -

[Please consult the veterinarian and refer to the *Guide for the Care and Use of Laboratory Animals* (*ILAR,* 1996; page 11) and *AVMA Policy on Physical Restraint of Animals* for guidance if you plan to use physical restraint of laboratory animals in your project.]

http://www.nap.edu/openbook.php?record_id=5140&page=11

http://www.avma.org/issues/policy/animal_welfare/physical_restraint.asp

POINT 5 - Describe methods of euthanasia:

[Please refer to the *AVMA Guidelines on Euthanasia* when selecting and describing a euthanasia method for your VAS.]

http://www.avma.org/issues/animal_welfare/euthanasia.pdf